**Janna Moes**

**SD Technology Standards to Pierre**

**10-27-11**

**NATURE, CONCEPTS AND SYSTEMS**

**(SYSTEMS THINKING, INTERACTIONS, AND DESIGN)**

**6-8**

**Indicator 1:** Students understand the history and progression of technology in

relation to the development and design of future technology.

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| 6.NC.1.1 Compare technology from the past  to the present as a progression of input,  process, output.  (Analysis) | In students’ social studies classes, they discuss life in ancient civilizations and comparative to modern times.  In my class, students work with ancient forms of creating art and compared to more modern art forms such as graphic design. |
| 7.NC.1.1 Outline the implications of  increasing computing potential over time.  (Analysis) | In math class, students take numbers and information from different times periods and compute the information. |
| 8.NC.1.1 Evaluate the innovations contributed by individuals and institutions related to technology to understand that role in the  development and design of technology. (Evaluation) | Do not meet this standard to my knowledge. |

**Indicator 2:** Students analyze the parts of a technological system in terms of input,

process, output, and feedback.

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| 6.NC.2.1 Analyze the processes of technology  systems. (Analysis) | In science and math class, especially, students are addressing this standard when computing and interpreting information in a chart.  In 6th grade art class, I have my students create a KWL chart to organize their information. |
| 7.NC.2.1 Describe how subsystems work within a larger system. (Comprehension) | In science class, students use the systems of the human body or structure of cells to tissues to organs to systems to organisms.  In my art class, students research an artist. The artist is part of a larger art movement. |
| 8.NC.2.1 Compare the effect one system has on another system. (Analysis) | In health class, students learn the systems of the body.  In art class, students learn the elements and principles of art, which are demonstrated in their artwork. |

**Indicator 3:** Students analyze the relationships and the connections between

technologies in different fields of study and how they apply to communities.

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| 6.NC.3.1 Identify careers in various technology areas. (Knowledge) | In FACS class, students address careers and jobs that are of interest to them. They research the details of the career such as job description, salary, job requirements, and growth rate. |
| 7.NC.3.1 Compare technology education  skills required to pursue a variety of career  paths. (Synthesis) | In art class, we discuss current careers in art many of which are technology related (graphic design). In addition, in class we plan, organize, communicate, problem-solve in all of our art projects. |
| 8.NC.3.1 Evaluate technology education skills  required to pursue a chosen personal career path. (Evaluation) | In Photoshop class, students visit a print shop in town, view photographer websites, and discuss jobs using Photoshop and publisher. |

**Indicator 4:** Students understand the purpose and demonstrate the use of the design

process in problem solving.

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| 6.NC.4.1 Demonstrate the iterative nature of the design process. (Comprehension) | In art class, we repeat the same procedures in particular art processes such as ceramic building (coil pots) and printmaking. |
| 7.NC.4.1 Provide examples that show the  universal nature of the design process. (Application) | In art class, for many of our projects students are given several sets of criteria but all students have the challenge of coming up with different outcomes. |
| 8.NC.4.1 Validate the design process in problem solving activities. (Synthesis) | In art class, students are using problem solving skills within their art projects. |

**SOCIAL INTERACTIONS**

**6-8**

**Indicator 1:** Students understand the safe, ethical, legal, and societal issues related to

technology.

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| 6.SI.1.1 Apply basic software/hardware solutions to protect themselves and others when using Information and Communications  Technologies (ICT).  (Application) | Do not meet this standard to my knowledge. |
| 7.SI.1.1 Correlate the costs and consequences  resulting from illegal/unethical use of  technology as it relates to changes in society.  (Analysis) | In 7th grade art, we discuss copyright qualities in art and what is legal and illegal when it comes to using copyrighted images. |
| 8.SI.1.1 Outline the components and purpose of school acceptable use  policies. (Analysis) | Do not meet this standard to my knowledge. |

**Indicator 2:** Students investigate the advantages and disadvantages of technology.

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| 6.SI.2.1 Analyze how adoption of technological advancements produces change. (Analysis) | Social Studies standard 8.E.1.3 |
| 7.SI.2.1 Determine which innovations in  technology have produced the greatest impact on society. (Application) | Do not meet this standard to my knowledge. |
| 8.SI.2.1 Distinguish the effects that may result from society’s increasing reliance on technology. (Analysis) | Do not meet this standard to my knowledge. |

**INFORMATION AND COMMUNICATION TOOLS**

**6-8**

**Indicator 1:** Students recognize and demonstrate skills in operating technological

systems.

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| 6.CT.1.1 Demonstrate touch-type at 20 gwam  with 2 or fewer errors per minute in a 3 minute  time period. (Application) | In 6th grade students are all involved in keyboarding where this standard is addressed. |
| 6.CT.1.2 Investigate the functionality of various storage devices providing rationale for their uses. (Analysis) | Students understand the uses of flash drives and CDs for transporting information. |
| 7.CT.1.1 Describe the factors that contribute to  increased/decreased functionality in a technological system. (Knowledge) | In computer class, students compare the difference versions of word. |
| 8.CT.1.1 Categorize the causes of routine hardware or software problems. (Synthesis) | Do not meet this standard to my knowledge. |

**Indicator 2:** Students use technology to enhance learning, extend capability, and

promote creativity.

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| 6.CT.2.1 Demonstrate ways to present and  publish information using a variety of common applications. (Comprehension) | In keyboarding and many science classes, students learn how to add graphs from a spreadsheet to a word processing document. |
| 6.CT.2.2 Incorporate the use of software features that demonstrate a broader understanding of the software. (Synthesis) | In many classes, we teach the students how to search for information through search engines but do not address how to search for information in within a software program. |
| 7.CT.2.1 Recognize differences between  applications and their uses. (Analysis) | In computer class, students are able to decide when to use which computer program for different applications. |
| 7.CT.2.2 Demonstrate ways that communication technologies interrelate. (Comprehension) | In computer class, students use digital cameras and computers to create digital artwork. |
| 7.CT.2.3 Create projects using technology  applications and tools. (Synthesis ) | In computer class and many other classes, student use many different programs such as Word, Excel, and Photoshop to create projects using tools and strategies learned.  In art class, we use several computer programs to create artwork. |
| 8.CT.2.1 Recommend applications that could be extended to other situations. (Evaluation) | In Photoshop class, students use publisher and Photoshop. |
| 8.CT.2.2 Demonstrate the ability to utilize virtual learning environments in a classroom setting. (Comprehension) | Classes use WebCT, Blackboard, Web-based portals, and Emetrics. |
| 8.CT.2.3 Incorporate the use of keyed technology into any learning environment.  (Synthesis) | In all subject areas this standard is achieved. |

**Indicator 3:** Students evaluate and select information tools based on the appropriateness

to specific tasks.

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| 6.CT.3.1 Differentiate versions of software and  file formats. (Analysis) | Students need to be able to decide what program for many projects and classes are going to fit a project best to display information. |
| 7.CT.3.1 Evaluate the effectiveness of new  tools. (Evaluation) | Students need to be able to decide what program for many projects and classes are going to fit a project best to display information. |
| 8.CT.3.1 Develop a repertoire of strategies to  apply new technologies to tasks. (Synthesis) | Do not meet this standard to my knowledge. |

**INFORMATION AND COMMUNICATION PROCESSES**

**6-8**

**Indicator 1:** Students understand the purpose of information technologies to

communicate with a variety of collaborators.

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| 6.CP.1.1 Identify the reasons for using  technology tools for interpersonal  interactions. (Knowledge) | Students know how to use this information but do not discuss the reasons behind using the technology. |
| 7.CP.1.1 Compare various ways in which  you can use collaborative  technologies to present information. (Analysis) | In many different subject areas, such as math and science, students complete this standard through data analysis. |
| 8.CP.1.1 Evaluate a variety of communication tools for effective and efficient collaboration. (Evaluation) | Do not meet this standard to my knowledge. |
| 8.CP.1.2 Evaluate the process of communicating clearly to peers, teachers and  others using collaborative technologies. (Evaluation) | Students create resumes and ask for references. |

**Indicator 2:** Students use a variety of technologies to exchange information and ideas for

an identified purpose.

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| 6.CP.2.1 Compare and contrast the effects of  different forms of technology on different  audiences. (Analysis) | Do not meet this standard to my knowledge. |
| 7.CP.2.1 Apply information technology  to design on demand communication.  (Application) | Do not meet this standard to my knowledge. |
| 8.CP.2.1 Integrate effective information technology to managing personal and  education information. (Synthesis) | Do not meet this standard to my knowledge. |

**INFORMATION LITERACY AND DECISION MAKING**

**6-8**

**Indicator 1:** Students use technology to locate and acquire information.

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| 6.IL.1.1 Describe the organizational structure  of searchable resources. (Comprehension) | Students use search engines in many class and projects. In addition, student use an online book search engine to find library books. |
| 7.IL.1.1 Compare technology systems and  resources. (Analysis) | Do not meet this standard to my knowledge. |
| 8.IL.1.1 Design a plan for conducting a search of electronic resources for a given task. (Synthesis) | Students research Photoshop and complete an article about it. |

**Indicator 2:** Students determine the reliability and relevancy of information.

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| 6.IL.2.1 Select online sources based on a list of  criteria. (Knowledge) | In many classes, students create projects based on criteria provided by the subject area of study. Students are to find appropriate information that will fit the criteria. |
| 7.IL.2.1 Analyze online sources for accuracy,  relevance, comprehensiveness and bias. (Analysis) | In Photoshop, students evaluate websites for accuracy, relevance, comprehensiveness, and bias. |
| 8.IL.2.1 Compare and contrast online sources for accuracy, relevance, comprehensiveness and bias. (Evaluation) | In Photoshop, students evaluate Photography websites for accuracy, relevance, comprehensiveness, and bias. |